

Serial No.: 10/671,940  
Docket No.: 101-1007  
Amendment dated March 9, 2007  
Reply to the Office Action of December 15, 2006

**REMARKS**

**Introduction**

Applicant notes with appreciation the Examiner's indication that claim 9 would be allowable if rewritten in independent form.

Upon entry of the foregoing amendment, claims 1-42 are pending in the application. Claims 12-24 and 33-39 have been withdrawn from consideration. No claims have been amended. No new matter is being presented. In view of the following remarks, reconsideration and allowance of all the pending claims are requested.

**Rejection under 35 USC §102(b) to Meyer**

Claims 1-8 and 11 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,239,817 to Meyer. This rejection is traversed for at least the reasons stated below.

**Independent Claim 1**

Referring to FIG. 2 of Meyer, as relied upon by the Examiner on page 3, item 3 of the Office Action dated December 15, 2006, the Examiner alleges that a first and second set of cockle beams 72-82 and 84-94, respectively, extend "from the first and second wall portions of the ink collector in the paper feed direction and in an opposite direction to the paper feed direction," as recited in independent claim 1. Although not pointed out in the Office Action, as best can be understood by Applicants without more clarity, the Examiner appears to rely on upstanding wall portions 68 and 69 illustrated in FIG. 3 of Meyer as allegedly reading on Applicants' "first and second wall portions," respectively. Contrary to the Examiner's allegations, the first and second set of cockle beams 72-82 and 84-94 do not extend in a paper feed direction and in an opposite direction to the paper feed direction. More specifically, as illustrated in FIGS. 2, 3, and 10, the cockle beams 72-82 and 84-94 "are integrally connected to the upstanding wall 34 (i.e., upstanding wall portions 68 and 69) and extend upwardly therefrom

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a sufficient distance to prevent the print medium sheet 16 from making contact with the absorbent block 40" (Col. 5, lines 2-5 of Meyer). Applicants respectfully point out that extending upwardly from the wall is not equivalent to extending in "the paper feed direction and in an opposite direction to the paper feed direction," as recited in independent claim 1. In fact, Meyer's cockle beams 72-82 and 84-94 extend from the upstanding wall portions 68 and 69 in a direction which is perpendicular to the direction recited in independent claim 1. Thus, contrary to the assertions made by the Examiner, Meyer does not teach or disclose, among other things, "first and second support beams extending from the first and second wall portions of the ink collector in the paper feed direction and in an opposite direction to the paper feed direction, respectively," as recited in claim 1.

The Examiner further alleges that the first and second set of cockle beams 72-82 and 84-94, respectively, are alternately arranged with each other in a scan direction. On page 3, lines 9-10 of the Office Action dated December 15, 2006, the Examiner states that "even and odd beams may serve as first and second beams, the even and odd beams alternating in the scan direction." However, as stated above, Meyer's cockle beams 72-82 and 84-94 all extend in an upward direction only. Furthermore, the cockle beams 72-82 and 84-94 are clearly illustrated as being aligned directly from across from one another, respectively, and not "alternately arranged with each other," as recited in independent claim 1. However, even if Meyer's cockle beams 72-82 and 84-94 could be interpreted as being alternately arranged, the cockle beams 72-82 and 84-94 do not respectively alternate between extending from a first wall in a paper feed direction and extending from a second wall in a direction opposite to the paper feed direction. Thus, contrary to the assertions made by the Examiner, Meyer does not teach or disclose, among other things, "first and second support beams extending from the first and second wall portions of the ink collector in the paper feed direction and in an opposite direction to the paper feed direction, respectively, and alternately arranged with each other in a scan direction," as recited in claim 1.

Section 2131 of the MPEP states "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051,

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1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as contained in the...claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). "The elements must be arranged as required by the claim..." In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Further, in the event that the Examiner is relying on the theory of inherency in any manner, "the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). See also MPEP 2112. Therefore, for a least the reasons that Meyer does not teach or disclose all of the features as recited in claim 1, this document cannot be properly used to anticipate this claim under 35 U.S.C. §102(b). Accordingly, withdrawal of this rejection and allowance of this claim are respectfully requested.

#### **Dependent Claims 2-8 and 11**

It is respectfully submitted that for at least the reasons that each of claims 2-8 and 11 depends from independent claim 1, and therefore contain each of the features recited in claim 1, these claims are therefore also patentable over Meyer, and withdrawal of the rejection of these claims and allowance thereof are earnestly solicited.

#### **Rejection under 35 USC §102(e) to Kodama**

Claims 1, 40 and 41 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Publication No. 2005/0078147 A1 to Kodama et al. (hereinafter "Kodama"). This rejection is traversed for at least the reasons stated below.

#### **Independent Claim 1**

Referring to FIG. 22 of Kodama, as relied upon by the Examiner, the Examiner alleges that a through hole 3 and a top 10 correspond to "wall portions to enclose a space to collect ink therebetween," as recited in independent claim 1. However, as defined by Merriam-Webster's Online Dictionary, a hole is "an opening through something...a hollowed out place," and a wall is "a material layer enclosing space." Therefore, Kodama's through hole 3 is clearly not one of the

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"wall portions to enclose a space to collect ink," as recited in independent claim 1. Furthermore, since the through hole 3 is a hole and not a wall, the through hole 3 cannot have a support beam extending therefrom. Therefore, Kodama fails to teach or disclose "first and second support beams extending from the first and second wall portions of the ink collector in the paper feed direction and in an opposite direction to the paper feed direction, respectively," as recited in independent claim 1.

Therefore, for at least the reasons that Kodama does not teach or disclose all of the features as recited in claim 1, this document cannot be properly used to anticipate this claim under 35 U.S.C. §102(e). Accordingly, withdrawal of this rejection and allowance of this claim are respectfully requested.

#### **Independent Claims 40 and 41**

Referring to FIG. 21 of Kodama, as relied upon by the Examiner, the Examiner alleges that a plurality of ribs 38 (see Kodama at par. 0258, lines 11-14) correspond to "one or more first support beams extending from the first opposing wall portion of the ink collector partially across the defined space, and one or more second support beams extending from the second opposing wall portion of the ink collector partially across the defined space," and "first and second support beams extending from the first and second opposing wall portions of the ink collector," as recited in independent claims 40 and 41, respectively. The Examiner also relies on a protuberance 14b and a top 10 as allegedly reading on Applicants' "first and second wall portions," respectively. However, Kodama's ribs 38 are not the same as Applicants' support beams, for at least the reason the ribs 38 do not extend from the protuberance 14b and the top 10. In contrast, FIGS. 21-23 clearly illustrate that Kodama's ribs 38 are "formed at intervals along the tilt section 45 to thereby define holes 48 oriented in the tilt direction of the tilt section" (see Kodama at par. 0258, lines 11-14). More specifically, Kodama's ribs 38 are only positioned inside the through hole 3 along the tilt section 45, and clearly do not extend from any opposing wall portions partially across any defined space or any defined space without partitioning the same. Thus, contrary to the assertions made by the Examiner, Kodama does not teach or disclose, among other things, "one or more first support beams extending from the first opposing wall portion of the ink collector partially across the defined space, and one or more

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second support beams extending from the second opposing wall portion of the ink collector partially across the defined space," or "first and second support beams extending from the first and second opposing wall portions of the ink collector to segment the defined space of the ink collector without partitioning the defined space," as recited in independent claims 40 and 41, respectively.

Therefore, for at least the reasons that Kodama does not teach or disclose all of the features as recited in either of claims 40 and 41, this document cannot be properly used to anticipate these claims under 35 U.S.C. §102(e). Accordingly, withdrawal of this rejection and allowance of these claims are respectfully requested.

#### Rejection under 35 USC §102(b) to Matsuhashi

Claims 40-42 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,997,129 to Matsuhashi. This rejection is traversed for at least the reasons stated below.

#### **Independent Claims 40 and 41**

At page 6, item 5 of the Office Action of December 15, 2006, the Examiner alleges that:

"Matsuhashi discloses...one or more first support beams extending from the first opposing wall portion of the ink collector partially across the defined space (any one of the support beams 214 extends from a portion of the bottom wall that surrounds the support beam and into a space defined by the bottom wall and side walls, which satisfies the language "across the defined space" and "wall portions to define a space");

Applicants submit that Matsuhashi is directed to an excess ink capturing mechanism 211 having guide ribs 214 for guiding recording paper over a reservoir 212. See Matsuhashi col. 10, lines 22-33 and FIG. 8. Matsuhashi's excess ink capturing mechanism 211 includes a bottom plate 212a and side walls 212b, 212c, 212d, and 212e rising from the periphery of the bottom plate 212a. The Examiner relies on the guide ribs 214 illustrated in Matsuhashi as allegedly being equivalent to "support beams," as recited in independent claims 40 and 41 of Applicants' invention. However, it is evident from FIG. 8 of Matsuhashi that the guide ribs 214 protrude

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from only the bottom plate 212a without contacting the side walls 212b, 212c, 212d, and 212e of the reservoir 212. Thus, the guide ribs 214 of Matsuhashi's excess ink capturing mechanism 211 do not extend from any the side walls (i.e., 212b, 212c, 212d, and 212e) of the reservoir 212. Moreover, the guide ribs 214 illustrated in Matsuhashi only extend upward from a center portion the bottom plate 212a of the reservoir 212. For at least the reason that the guide ribs 214 of Matsuhashi's excess ink capturing mechanism 211 do not extend from the side walls 212b, 212c, 212d, and 212e of the reservoir 212, the guide ribs 214 are not the same as "one or more first support beams extending from the first opposing wall portion of the ink collector partially across the defined space, and one or more second support beams extending from the second opposing wall portion of the ink collector partially across the defined space," or "first and second support beams extending from the first and second opposing wall portions of the ink collector," as recited in independent claims 40 and 41, respectively. Accordingly, Applicants respectfully submit that Matsuhashi fails to disclose each element as recited in independent claims 40 and 41 of Applicants' invention.

Furthermore, the Examiner alleges that "bottom surface 212a in FIG. 8 is a bottom wall of the ink collector and any two portions of this wall satisfy the limitation of the 'wall portions'." However, Applicants respectfully submit that this statement by the Examiner does not address the claim language of independent claims 40 and 41, as recited. Applicants are not claiming a wall with "two opposing portions," as alleged by the Examiner. Instead, Applicants' invention, as recited in independent claims 40 and 41, respectively, recites "one or more first support beams extending from the first opposing wall portion of the ink collector partially across the defined space, and one or more second support beams extending from the second opposing wall portion of the ink collector partially across the defined space," and "first and second wall portions to define a space to collect ink and first and second support beams extending from the first and second opposing wall portions of the ink collector." In other words, the bottom plate 212a illustrated in FIG. 8 of Matsuhashi does not have "first and second opposing wall portions to define a space to collect ink," as recited in both independent claims 40 and 41. Accordingly, contrary to the assertions by the Examiner, the bottom plate 212a of Matsuhashi is not "first and second opposing wall portions," as recited in independent claims 40 and 41.

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Therefore, for at least the reasons that Matsuhashi does not teach or disclose all of the features as recited in claims 40 and 41, this document cannot be properly used to anticipate these claims under 35 U.S.C. §102(b). Accordingly, withdrawal of this rejection and allowance of these claims are respectfully requested.

**Dependent Claim 42**

It is respectfully submitted that for at least the reasons that claim 42 depends from independent claim 41 and therefore contains each of the features recited in claim 41, this claim is therefore also patentable over Matsuhashi, and withdrawal of the rejection of this claim and allowance thereof is earnestly solicited.

**Rejection under 35 USC §102(b) to Matsuhashi**

Claims 25-29, 31 and 32 have been rejected under 35 U.S.C. §102(b) as being anticipated by Matsuhashi. This rejection is traversed for at least the reasons stated below.

**Independent Claim 25**

As set forth above in the discussion of independent claims 40 and 41, it is evident from FIG. 8 of Matsuhashi that the guide ribs 214 protrude only from the bottom plate 212a within the reservoir 212 without contacting the side walls 212b, 212c, 212d, and 212e thereof. Thus, the guide ribs 214 illustrated in Matsuhashi only extend upward from a center portion of the bottom plate 212a in the reservoir 212, and the guide ribs 214 do not extend over any upper portion of the reservoir 212. Since the guide ribs 214 of Matsuhashi's excess ink capturing mechanism 211 do not "extend over any upper portion" of the reservoir 212, the guide ribs 214 are not the same as "a plurality of first support beams extending over the space at an upper portion of the ink collector..." or "a plurality of second support beams extending over the space at an upper portion of the ink collector...", as recited in independent claim 25 of Applicants' invention.

Moreover, the Examiner never defines what is being alleged as "support beams extending over the space at an upper portion of the ink collector," as recited in independent claim 25, thus not providing Applicants with a fair opportunity to even respond to this non-

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descriptive rejection. However, in order to respond as best as possible in view of the non-descriptive rejection, Applicants must assume that the Examiner is referring to the guide ribs 214 illustrated in FIG. 8 of Matsuhashi, which project upward in the space of the ink reservoir 212 from the bottom plate 212a at a point in the center of the ink reservoir 212. However, referring to FIG. 8 of Matsuhashi, Applicants submit that there is nothing in Matsuhashi that can read on the claim language "extending over the space at an upper portion," since the guide ribs 214 are clearly limited to being disposed within a center portion of the ink reservoir 212. The guide ribs 214 simply cannot be construed as "extending over the space at an upper portion of the ink collector...", as recited in independent claim 25. Therefore, the Examiner's position is not supported, and Matsuhashi fails to disclose, among other things, "a plurality of first support beams extending over the space at an upper portion of the ink collector..." and "a plurality of second support beams extending over the space at an upper portion of the ink collector...", as recited in independent claim 25 of Applicants' invention.

Accordingly, Applicants respectfully submit that Matsuhashi fails to disclose each element as recited in independent claim 25 of Applicants' invention. Since Matsuhashi does not explicitly or inherently disclose every element as recited in independent claim 25, Matsuhashi cannot be properly used to reject this claim under 35 U.S.C. § 102(b). Therefore, it is respectfully submitted that independent claim 25 is allowable over Matsuhashi, and withdrawal of this rejection and allowance of this claim are earnestly solicited.

#### **Dependent Claims 26-29 and 31**

It is respectfully submitted that for at least the reasons that each of claims 26-29 and 31 depends from independent claim 25, and therefore contain each of the features recited in claim 25, these claims are also patentable over the references relied upon by the Examiner, and withdrawal of the rejection and allowance of these claims are earnestly solicited.

#### **Independent Claim 32**

At page 9, item 6 the Office Action of December 15, 2006, the Examiner alleges that Matsuhashi discloses "a platen along which the printing medium is conveyed (fig. 8); an ink collector...including a space portion positioned beneath an upper surface of the platen (205) to

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collect excess ink...a plurality of first support beams (214, even) disposed within the space portion at a printing medium feeding side...and a plurality of second support beams (214, odd) disposed within the space portion at a printing medium discharge side..." all as recited in independent claim 32 of Applicants invention.

As set forth above in the discussion of independent claims 40 and 41, Matsuhashi is directed to an excess ink capturing mechanism 211 having guide ribs 214 for guiding recording paper over a reservoir 212. See Matsuhashi col. 10, lines 22-33 and FIG. 8. Matsuhashi's excess ink capturing mechanism 211 includes a bottom plate 212a and side walls 212b, 212c, 212d, and 212e rising from the periphery of the bottom plate 212a. The Examiner again relies on the guide ribs 214 illustrated in Matsuhashi as allegedly being the same as "a plurality of first support beams disposed within the space portion at a printing medium feed side of the ink collector" together with "a plurality of second support beams disposed within the space portion at a printing medium discharge side of the ink collector," as recited in independent claim 32 of Applicants' invention. However, it is evident from FIG. 8 of Matsuhashi that the guide ribs 214 protrude only from a center portion of the bottom plate 212a. Moreover, each of these guide ribs 214 are aligned along a same line within the reservoir 212. That is, guide ribs 214 are not disposed on either a feed side or a discharge side an ink collector, let alone being "disposed at a printing medium feed side" and being "disposed at printing medium discharge side," both as recited in independent claim 32. See Matsuhashi FIG. 8. Thus, the guide ribs 214 illustrated in Matsuhashi are not the same as "a plurality of first support beams disposed within the space portion at a printing medium feed side of the ink collector..." and "a plurality of second support beams disposed within the space portion at a printing medium discharge side of the ink collector ...," as recited in independent claim 32 of Applicants' invention.

Furthermore independent claim 32 of Applicants' invention recites two types of support beams, namely, "first support beams" that are "disposed...at a printing medium feed side" and "second support beams" that are "disposed...at a printing medium discharge side," whereas the guide ribs 214 shown in FIG. 8 of Matsuhashi are all the same. Thus, the guide ribs 214 can not be read as "a plurality of first support beams" and "a plurality of second support beams," as recited in independent claim 32.

Accordingly, Applicants respectfully submit that Matsuhashi fails to disclose, among

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other things, "a plurality of first support beams disposed within the space portion at a printing medium feed side of the ink collector extending in a printing medium feed direction to support the printing medium above the space portion" and "a plurality of second support beams disposed within the space portion at a printing medium discharge side of the ink collector and extending in an opposite direction to the printing medium feed direction, the plurality of second support beams being overlapped by the plurality of first support beams to support the printing medium during feeding thereof between the ink head and the ink collector," as recited in independent claim 32 of Applicants' invention.

For at least the reasons that Matsuhashi does not teach or disclose all of the features as recited in claim 32, this document cannot be properly used to anticipate this claim under 35 U.S.C. §102(b). Accordingly, withdrawal of this rejection and allowance of this claim are respectfully requested.

#### Rejection under 35 USC §103 to Meyer in view of Matsuhashi

Claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over Meyer in view of Matsuhashi. This rejection is traversed for at least the reasons stated below.

As discussed above with reference to independent claim 1, Meyer does not teach or disclose, among other things, "first and second support beams extending from the first and second wall portions of the ink collector in the paper feed direction and in an opposite direction to the paper feed direction, respectively, and alternately arranged with each other in a scan direction," as recited in independent claim 1. Furthermore, the Examiner admits on page 10, item 8 of the Office Action dated December 15, 2006, that Meyer does not disclose "a second support beam with a round end portion," as recited in claim 10 which is dependent from claim 1. However, the Examiner cites Matsuhashi as allegedly teaching the limitations not disclosed by Meyer. However, Applicants respectfully point out that Matsuhashi does not teach or suggest any of the features which are lacking in Meyer with respect to independent claim 1. In other words, Matsuhashi does not teach or suggest, among other things, "first and second support beams extending from the first and second wall portions of the ink collector in the paper feed

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direction and in an opposite direction to the paper feed direction, respectively," as recited in independent claim 1.

Therefore, since neither Meyer nor Matsuhashi, either separately or in combination with one another, teach or suggest each of the features as recited in claim 1, in which claim 10 depends, withdrawal of this rejection and allowance of claim 10 are earnestly solicited.

#### Rejection under 35 USC §103 to Matsuhashi in view of Kobayashi

Claim 30 is rejected under 35 U.S.C. §103(a) as being unpatentable over Matsuhashi in view of U.S. Patent No. 6,158,840 to Kobayashi et al. (hereinafter "Kobayashi"). This rejection is traversed for at least the reasons stated below.

As discussed above with reference to independent claim 25, of which claim 30 ultimately depends, Matsuhashi does not teach or disclose, among other things, "a plurality of first support beams extending over the space at an upper portion of the ink collector in a printing medium feed direction to support the printing medium at a printing medium feed side of the ink collector, and a plurality of second support beams extending over the space at an upper portion of the ink collector in an opposite direction to the printing medium feed direction and alternately arranged with the plurality of first support beams to support the printing medium at a printing medium discharge side of the ink collector," as recited in independent claim 25." Furthermore, the Examiner admits of page 10, item 8 of the Office Action dated December 15, 2006, that Matsuhashi does not disclose that "the space portion comprises a felt to absorb the ink drops caught by the space portion," as recited in claim 30 which is dependent from claim 25. Accordingly, the Examiner relies on Kobayashi as allegedly teaching the limitations not disclosed by Matsuhashi. However, Applicants respectfully point out that Kobayashi does not teach any of the features which are lacking in Matsuhashi with respect to independent claim 25 as pointed out above.

Therefore, since neither Matsuhashi nor Kobayashi, either separately or in combination with one another, to teach or suggest each of the features as recited in claim 30, dependent claim 30 is patentable over both Matsuhashi and Kobayashi at least by virtue of its dependency

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on independent claim 25, which is allowable over both documents, and withdrawal of this rejection and allowance of this claim 30 are earnestly solicited.

**Conclusion**

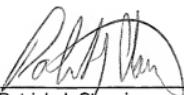
It is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, there being no other objections or rejections, this application is in condition for allowance, and a notice to this effect is earnestly solicited.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided below.

If any further fees are required in connection with the filing of this amendment, please charge the same to our Deposit Account No. 502827.

Respectfully submitted,

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